

CCA#3-Attachment B

CHANGE ORDER NO. 26

This agreed Change Order to Contract #229944 (Change Order) is entered into by and between ERG Transit Systems (USA) Inc, a California corporation and wholly owned subsidiary of ERG Limited, an Australian corporation, (hereinafter referred to as the "Contractor") and each of the following seven public transportation agencies (hereinafter referred to individually as an "Agency" or collectively as the "Agencies"):

1. Central Puget Sound Regional Transit Authority ("Sound Transit")
2. King County ("King County")
3. Kitsap County Public Transportation Benefit Area ("Kitsap Transit")
4. Pierce County Public Transportation Benefit Area ("Pierce Transit")
5. Snohomish County Public Transportation Benefit Area ("Community Transit")
6. City of Everett ("Everett")
7. State of Washington, acting through the Washington State Department of Transportation, Washington State Ferries Division ("WSF")

Recitals

A. Effective April 29, 2003, each of the Agencies and the Contractor entered into Contract #229944 ("Contract") to implement a Regional Fare Coordination System ("RFC System") to establish a common fare system utilizing smart card technology. The Contractor is responsible for the development, implementation, operation and maintenance of the RFC System as specified in the Contract.

B. This Change Order #26 is attached to, and adopted by, the Agencies and the Contractor as part of Contract Change Agreement #3.

Agreement

The Agencies and the Contractor hereby agree to amend the Contract as follows:

1.0 Change to Section 6.II-11.4.3.2

Sec. 11.4.3.2 is amended to read as follows:

6.II-11.4.3.2 RFCS Test Bed

a. The Contractor shall provide a test-bed located in the Puget Sound Area. Equipment representing each Agency's equipment and configuration shall be assembled in a single test-bed ("RFCS test-bed") to permit interconnection to simulate the overall RFCS configuration and operation. The RFCS test-bed shall be used to perform, among other things, device testing, device interface and integration testing, including systems integration, and configuration data testing and administration.

It is not required that the Central System or DACS which support financial and operational data processing be co-located at this site, but it must be possible to interconnect to them using the telecommunications processes to be used in the installed system environment. The RFCS central system (clearinghouse, servers and associated systems and networks) shall be connected to the test bed to support full operation of all systems and subsystems in the RFCS test bed. The RFCS testbed also includes the devices, connections and network that enable Washington State Ferries (WSF) to remotely access an RFCS Release in the testbed in order to test it in conjunction with other WSF hardware and software that are integrated with the RFCS.

b. The test-bed shall be established prior to the commencement of System Integration Testing. Each Agency's actual equipment shall also be utilized in the RFCS test-bed to perform end-to-end testing prior to delivery of said Agency equipment to Agency facilities.

c. The Contractor shall be responsible for the test-bed environment until completion of Contract.

The test-bed shall remain operational through the duration of the Contract and shall be updated to reflect any changes to the devices, software, system configuration and/or configuration data.

2.0 Change to Section 6.II-11.4.7.1

Section 6.II-11.4.7.1 is amended to read as follows:

11.4.7.1 Acceptance Testing Settling In Period

The initial period of time following the completion of the Phase II Milestone of "Completion of Complete System Commissioning" shall be designated as the Acceptance Testing Settling In period. The Contractor shall archive data created during development and testing so that the Settling-in period shall commence with clean databases.

(a) The Acceptance Testing Settling In period will last for at least thirty (30) days prior to beginning Acceptance Testing. During the Acceptance Testing Settling In

period, all areas of the RFCS System will be available for the Agencies' use, including performing all production functionality and conducting training.

(b) During the Acceptance Testing Settling In period a failure review test process shall be established (CDRL 20) by the Failure Review Team.

(c) At the end of the Acceptance Testing Settling In period the Mean Transactions Between Failures (MTBF) for high transaction volume equipment of the same type shall be not less than 40% of the MTBFs presented in Division III for each type of RFCS equipment.

(d) For equipment of the same type in a low transaction volume environment, the mean operating hours between failures (MOHBF) in a group shall be not less than 40% of the mean hours between failures presented in Division III for each type of RFCS equipment.

(e) If at the end of the Acceptance Testing Settling In period the above MTBF and mean operating hours between failures (MOHBF) criteria are not met, then the reliability of the equipment shall be monitored until these criteria are met for thirty (30) consecutive days.

(f) Acceptance testing shall not commence until the MTBF and MOHBF requirements in (c) and (d) above are met.

3.0 Contract Document Requirements List

Section 6.II-11.6 is amended by adding the following to Figure II-11.6, "Contract Document Requirements List."

CDRL 43 Overall RFCS Release Plan

CDRL 44 Detailed RFCS Release Plan

4.0 New Section added to Section 6.II-11

A new section, Section 6.II-11.7, is added as follows:

6.II-11.7 Phase 2 Development and Testing Period

The following provisions shall apply during the Phase 2 Development and Testing Period which is the period that begins with the commencement of Phase 2 and continues through the Milestone "Completion of Complete System Commissioning." The provisions in this Section 11.7 shall control in the event of any conflict with other provisions in the Contract.

11.7.1 Definitions

a. Hardware Revisions - any changes to the design or manufacture of ERG-supplied RFCS hardware, including but not limited to new hardware or peripherals, new or end-of-life

replacement components used in existing hardware, and any hardware that has been altered or modified.

b. Software Revisions – any changes to the design or coding of RFCS software or firmware, including but not limited to new software, software Updates, software Upgrades, or software changes or Modifications.

c. Document Revisions – any changes to the content, format or presentation of a document whether in electronic or paper format.

d. Phase 2 Revisions – Collectively, Hardware, Software and/or Document Revisions that will be provided in Phase 2 for use in Full System revenue service, including revisions listed in Section 2 and other revisions as may be agreed to by the Parties.

e. RFCS Release – Collectively, Hardware, Software and/or Document Revisions that are grouped together for the purpose of development, testing, and release into the RFCS test and production environments.

f. RTB – the Regional Testbed located in the Contractor's Seattle facility which includes all equipment, software and systems necessary to conduct end-to-end testing of the RFCS, except for banking interfaces, ACH file submission and settling with financial institutions. The RTB also includes the devices, connections and network that enable Washington State Ferries (WSF) to remotely access an RFCS Release in the RTB in order to test it in conjunction with other WSF hardware and software that are integrated with the RFCS.

g. RTB Test Period – The period of time that Agency staff have access to the RTB for the purpose of conducting user testing of an RFCS Release.

h. Overall RFCS Release Plan – a document listing all Phase 2 Revisions, assigning each RFCS Revision to an RFCS Release, and providing a schedule of all planned RFCS Releases.

i. Detailed RFCS Release Plan – a document issued prior to the commencement of work on a specific RFCS Release that lists all documents, test plans and test procedures to be utilized and/or revised as part of the development, testing and release of the RFCS Release, as well as a proposed schedule of RFCS Release and Document Revision activities (including the RTB Test Period agreed to for that RFCS Release).

j. RFCS Release Notes – a document provided with each RFCS Release describing the release content, application notes, and release instructions.

k. Onboard Equipment (OBE). Units of RFCS equipment installed onboard Agency coaches; the PFTP's, SAFTP's and GAK's installed at Sound Transit and at Washington State Ferries; and any of the above in Test/Training Rigs as defined below.

l. Test/Training Rigs. Units of Onboard Equipment provided to the Agencies for the purpose of testing/training outside of a bus or terminal.

m. Production System. The RFCS devices and systems to be utilized for operation of the RFCS in Phase 2, including equipment, networks and systems installed at/to Agency premises, and the RFCS clearinghouse and associated services. It is recognized that financial settlement and funds movement will occur with use of this system.

11.7.2 Scope of Phase 2 (Revisions and System/Services)

a. The Phase 2 Revisions shall consist of (a) the revisions required to resolve all Development Issues (DEVIs) that have been identified to date and will be subsequently identified; (b) the revisions needed to implement the functionality identified by the Agencies in the numbered Requests for Information (RFIs) that are listed in the "Phase 2 Revisions List," dated September 26, 2007, attached hereto as CO-26--Appendix A. (Regarding the PFTP, the Parties acknowledge open issues exists as to the hardware platform and agree to diligently proceed in good faith to decide on the hardware to be used for Phase 2 and resolve the cost implications, if any, by October 15, 2007. Until the hardware has been selected, the Contractor agrees to defer any activities on RFCS RFI 243 that would vary according to the hardware.) The Parties acknowledge that RFIs are exchanges of information, not agreements, change orders or amendments to the Contract. The purpose of listing the RFIs in CO 26--Appendix A is to identify the functionality that will be addressed by the Phase 2 Revisions. As provided below, revised design documents will be developed for the Phase 2 Revisions and, upon their being issued a NAC, said revised design documents will constitute Contract Documents. The Parties acknowledge and agree that the RFIs are not, and shall not be construed to be, Contract Documents or parts of the Contract.

b. The Contractor shall provide and maintain the following systems during the Phase 2 Development and Testing Period:

- 1) The Regional Testbed
- 2) The Production System

Commencing thirty (30) days prior to the First Release being made available for user testing in the RTB as provided in Section 76.3.13, and thereafter for the duration of the Phase 2 Development and Testing Period, the Agencies shall conduct testing of the RFCS through the Regional Testbed and/or Production System using Agency staff and designated test personnel. The Contractor agrees that its provision of the RTB, the Production System and the services described hereunder, and the Agencies access and use of same, shall not (a) trigger any maintenance costs or other compensation except for the lump sum provided in Section 3.I-76.3.12; or (b) limit, reduce or otherwise affect the Contractor's obligations under the Contract including but not limited to its obligations under Section 3.I-52-53 (Pre-Acceptance Deficiencies), Sections 3.I-55-63 (Warranties) and Section 6.II-11.4.7 (System Acceptance Testing).

Throughout the duration of the Phase 2 Development and Testing Period, the Contractor shall provide the following services and service levels:

SERVICE AREA	SERVICES TO BE PROVIDED	SERVICE LEVELS
a. Regional Testbed Operation	The RTB shall provide all RFCS functionality except banking interfaces and ACH file submission and settling with financial institutions, in a test environment, and shall include equipment, services and support for each and all of the seven (7) RFCS participating Agencies.	The RTB shall be available for Agency testing of RFCS Releases and Agency CD testing from 9:00 AM to 5:00 PM during normal business days and on weekends if necessary to test particular fare products. Testing time will be scheduled between the Agencies and ERG. ERG staff shall be onsite during all RTB testing to assist Agency staff. (The Contractor agrees that it will provide training courses at Agency facilities and not in the RTB.)
b. Production System Operation	The production system shall include all devices, systems and networks required to operate the RFCS, whether at Contractor or Agency facilities. The Disaster Recovery site will be maintained in operation.	The production system shall be available 24 hours a day seven days a week, except as reasonably required to accommodate planned maintenance periods. Such maintenance periods shall be coordinated with the Agencies.
c. Customer Service	The Contractor shall provide Help Desk services to answer Agency questions and inquiries.	The Seattle Technical Support Help Desk shall be available from 9:00 AM to 5:00 PM during normal business days.
d. RFCS Websites	All RFCS websites (Agency Website, Business Account Website, Call Center Websites) shall be maintained in operation.	All RFCS websites shall be available per the requirements for Production System Operation.
e. Other Sales Channels	All other sales and revalue channels (customer service terminal, terminal retail unit, and mail center) shall be maintained in operation.	All other sales channels shall be available per the requirements for Production System Operation.
f. Local Servers and Networks	All local servers (data acquisition computers, back office computers, and related equipment), wired networks, and wireless networks shall be maintained in operation.	All local servers and networks shall be available per the requirements for Production System Operation.
g. Fare Card Procurement and Distribution	At the Agencies request, the Contractor shall provide a one-time procurement and distribution of up to 1,000 fare cards, at a per card price of \$4.89 (that includes any and all charges for the card and its initializing, distribution, management and other services), to be used for test purposes per the requirements of 6.II-3 of the Contract.	Cards shall be procured and distributed per the requirements of 6.II-3 of the Contract.
h. Fare Card Management	The Contractor shall provide fare card management per the requirements of 6.II-4 of the Contract as required to support testing.	Management services, as required for testing, shall be per the applicable requirements of 6.II-4 of the Contract.
i. Financial Management and Clearinghouse	The Contractor shall provide and maintain all financial management and clearinghouse services per the	Clearinghouse services shall be available per the requirements for Production System Operation. Financial reconciliation

SERVICE AREA	SERVICES TO BE PROVIDED	SERVICE LEVELS
Services	requirements of 6.II-5 and 6.II-6 of the Contract. The total number of cards in use during testing shall be less than or equal to 1,000, except if required for system stress testing.	settlement process shall be initiated, on average, every three (3) days, except as required to support specific test scenarios. Settlement and reconciliation timing shall be per Figure 8 of Section 6.4 of DR 6 (ERG Document SEA-00033).
j. Maintenance Services	The Contractor shall provide local maintenance and repair of RTB and Production System devices used in testing.	The Contractor shall be responsible for repair and replacement within two (2) business days for any malfunctioning device(s) that are covered by On-site Maintenance; and within 14 calendar days for any malfunctioning device(s) that are covered by Depot Maintenance). In the event that a repair cannot be completed within that period, the Contractor shall supply and install a replacement device
k. General Support Services	In addition to the Seattle Technical Support Help Desk, the Contractor shall maintain the following support services: A. Incident recording and reporting. B. Local field support. C. Network and device operation support.	The following service levels shall apply: A. Incident recording and reporting: The Contractor shall hold incident reporting teleconferences and create/update incident reports in accordance with the Incident Review Process described in Sec. 11.7.5(b). B. Local field support. A local technician shall be available to respond to non-emergency problems or issues at Agency facilities from 9:00 AM to 5:00 PM during normal business days. Response shall be within the next business day of notification. C. Network and device operation support shall be supplied via the Help Desk from 9:00 AM to 5:00 PM during normal business days.

11.7.3 Phase 2 Design

a. For each Phase 2 Revision which contains Hardware Revisions and/or Software Revisions, the Contractor shall prepare Document Revisions as required, and shall submit revised design documents (DRs and CDRLs) and images of revised website pages for Agency review and issuance of a NAC. The RFCS Revision shall not be released for FAT testing until a NAC for the revised design documents has been received.

b. Proposed revisions to documents shall be shown by providing the entire document with underlines for new content and strikethroughs for deleted content. Proposed revisions to website pages shall be shown by providing images of the proposed revised web pages.

c. Document Revisions shall be made throughout Phase 2, subject to Agency review and issuance of a NAC, to reflect the functionality and processes delivered in Phase 2. Phase 1 Design documents not needing modification during Phase 2 need not be submitted, however with each Document Revision the Contractor shall provide an updated list of all current documents listing the document name, identifier, latest revision number, and latest revision date.

11.7.4 RFCS Release Plans and Testing Plans/Procedures

a. The Contractor shall submit an Overall RFCS Release Plan (CDRL 43) that lists all Phase 2 Revisions, and assigns all such Revisions to a scheduled RFCS Release. The Contractor and the Agencies shall work together to agree on the assignment of Phase 2 Revisions to a RFCS Release, based on the ability of all Parties to support such assignments and the Parties' agreement that the highest priority is for the earliest release of those Phase 2 Revisions that affect operator training (i.e. any revisions to onboard equipment and functionality) and customers (i.e. any revisions to websites). Such Overall RFCS Release Plan shall be subject to Agency review and issuance of a NAC before testing commences on any RFCS Release.

b. With each RFCS Release, the Contractor shall provide the Detailed RFCS Release Plan (CDRL 44). Such Plan shall be subject to Agency review and issuance of a NAC before development and testing of that RFCS Release.

c. The Contractor shall provide Factory Acceptance Test (FAT) and Systems Integration Test (SIT) plans, procedures and results for each RFCS Release, subject to Agency review and issuance of a NAC.

d. With each RFCS Release, the Overall and Detailed RFCS Release Plans shall be revised and resubmitted to the Agencies to reflect any Severity 3 or Severity 4 issues that remain unresolved (as provided in Section 11.7.5 below), and any new issues that have been identified. Such issues shall be included in a future RFCS Release and so indicated in both the Overall RFCS Release Plan and Detailed RFCS Release Plan(s) associated with the future RFCS Release(s).

11.7.5 Development and Testing of Each RFCS Release

a. Development. Once a NAC has been issued for a modified design document related to the Phase 2 Revisions in a RFCS Release, the Contractor may commence its development and testing activities.

b. Issue Resolution Process and Issue Severity Classifications.

The following is a general description of the Issue Resolution Process that will be used as issues are reported during the course of the Phase 2 Development and Testing Period, through the Milestone of "Completion of Complete System Commissioning." Another process will be developed for resolution of issues that arise on systems and equipment being operated in revenue service (post Completion of Complete System Commissioning).

1. All issues reported by either the Contractor or the Agencies shall be entered by the Contractor into the Contractor's log, and assigned a tracking reference number (i.e.

Development Issue or DEVI number in ERG's issue tracking system) and severity classification at the time of identification, according to the following four severity classifications.

Issue Severity Classifications

Severity	Definition
1 – Critical	<ul style="list-style-type: none"> • Critically affects the primary business service, major application, or mission critical system; • Materially impacts the Agency's ability to deliver transit service or fare collection; • No workaround is available; • Fatal error, application halt; • Multiple test cases aborted until defect corrected; • Critical path schedule impact; • Loss of Production Data; • High priority functionality critically affected; or • Functionality affecting customers, customer service representatives, coach operators, fare inspectors, or WSF fare collection staff is not available. <p>Examples: All CSTs will not launch, Web Site Unavailable,</p>
2 – Important	<ul style="list-style-type: none"> • The business service, major application, or system is seriously affected or implementation stopped; • The system is exposed to potential loss or interruption of service; • No acceptable workaround is available; • Serious error, graceful exit; • Core functionality or primary interface affected; • Test case(s) cannot continue until defect corrected or • Functionality affecting customers, customer service representatives, coach operators, fare inspectors, or WSF fare collection staff does not operate as designed. <p>Examples: A single CST will not launch, a single Web Service is Unavailable, Production Backup Failure</p>

Severity	Definition
3 – Routine	<p>An issue that is not a 1 or 2 Severity and meets one of the following criteria:</p> <ul style="list-style-type: none"> • A business service, major application, or system is moderately impacted, no data has been lost, and the business service, application, or system is still functioning; • Workaround available; or • Secondary interfaces or functionality affected. <p>Examples: Layout of an Agency Website navigation bar</p>
4 – Low	<p>An issue that is not a 1 or 2 Severity and meets one of the following criteria:</p> <ul style="list-style-type: none"> • Issue or defect requires modifications to testing procedures, but does not materially affect test or results; • Workaround available, if required; or • Low visibility error or no functionality impact. <p>Examples: Spelling Errors, Minor Documentation Errors (typos), Sort Order, colors</p>

2. If the Agencies identify an issue, they shall inform the Agencies' Contract Administrator (C.A.), or designee, who will be responsible for sending, via email, an issue report to the Contractor's Project Manager (P.M.), or designee. The issue report shall describe the nature of the problem, any investigative or other actions taken prior to the report, any results of such actions, and the Agencies' classification of the issue as Severity 1, 2, 3 or 4. The Contractor shall acknowledge receipt of any Agency-reported issues by assigning it a tracking reference number, and emailing that number back to the Agencies' C.A. or designee along with confirmation of, or proposed changes to, the initial severity classification.

3. If the Contractor identifies an issue, it shall assign the issue a tracking reference number and email a report to the Agencies' C.A. or designee that includes the tracking number, the nature of the problem and an initial severity classification as proposed by the Contractor. The Agencies C.A. or designee will confirm receipt of the issue report, and confirm or identify proposed changes to, the initial severity classification.

4. The Contractor shall review all issues, diagnose the cause of the issue and identify potential resolution approaches. In the event that the Contractor believes that additional investigation is required to confirm a reported issue, the Contractor shall so indicate in its acknowledgement of the issue, and shall also identify any recommended follow-up actions to be taken by the Contractor and/or Agencies. The issue shall be maintained and tracked based on the initial issue report, however its status and severity rating may be subsequently revised by mutual agreement based on the results of any additional investigation. A reported issue may be closed

if neither the Agencies nor the Contractor can reproduce the issue within a reasonable timeframe, in which case the closure shall be recorded as "issue not able to be reproduced."

5. The Contractor shall submit to the Agencies a weekly Test Status Report on the status of all testing and issues as recorded in the Contractor's issues log.

6. Unless otherwise agreed, the parties shall hold daily meetings during user testing in the RTB, and twice weekly during user testing on Agency production equipment, to discuss the status of the issues, closure requests, proposed revisions to severity ratings, technical questions or clarifications, and the Contractor's diagnosis and proposed approach(es) to resolution. For any technical issue discussions, the Contractor and Agencies shall provide personnel who are qualified to discuss the issue, investigation results and potential approaches to resolution.

7. The meetings will occur by teleconference, with the Contractor providing the teleconference service and the Agencies reimbursing the Contractor the lesser of one-half the actual monthly charge for calls made for these meetings or \$5,000 per month. The Contractor shall provide the Agencies with documentation of the actual charges for these calls. Provided, however, the Agencies reserve the right to terminate this reimbursement with thirty (30) days written notice save that the Agencies will share the charges for calls made for these meetings prior to such notice in accordance with this paragraph 7. In such event, the daily meetings shall occur at King Street Center and the Contractor and the Agencies shall be responsible for their own costs in providing the telephone connection, if any, for their required personnel to participate.

c. HFAT. The Contractor shall submit Hardware Factory Acceptance Test (HFAT) plans, procedures and results for all Hardware Revisions. For all new hardware devices or peripherals, new HFAT plans, procedures and results shall be supplied. For any Phase 1 hardware that has been modified or has had components changed due to end-of-life or other reasons, the Contractor shall resubmit updated versions of the Phase 1 HFAT plans, procedures and results providing evidence that the hardware in its revised configuration has passed all applicable tests. The Agencies, at their sole discretion and expense, may witness the HFAT tests as scheduled by the Contractor.

All Hardware Revisions included in an RFCS Release must pass HFAT before the RFCS Release proceeds to SIT. Hardware Revisions associated with an RFCS Release shall be considered to have "passed" HFAT if:

- 1) all the Hardware Revisions in the RFCS Release have been tested; and
- 2) any hardware-related Severity 1 or 2 issues identified in testing have been fixed, tested and passed; and
- 3) Seventy-five percent (75%) of the combined hardware-related Severity 3 and 4 issues identified in testing have been fixed, tested and passed.

When the Contractor believes that a RFCS Release containing Hardware Revisions has passed HFAT, the Contractor shall submit an HFAT Report (CDRL 24A) to the Agencies that lists the results of each test of each Hardware Revision. Each HFAT Report shall be subject

to Agency review and issuance of a NAC. Except for the final RFCS Release, outstanding hardware-related Severity 3 and 4 issues within the 25% maximum shall be added to a subsequent RFCS Release related to hardware, and both the Overall and Detailed RFCS Release Plans shall be revised in accordance with Section 6.4 above. The final RFCS Release related to hardware shall not be considered to have "passed" H-FAT if any Severity 3 or 4 issues related to hardware remain unfixed, unless the Agencies, in their sole discretion, agree in writing via their Contract Administrator that such issues may be deferred to be fixed during SIT.

d. FFAT. The Contractor shall submit Functional Factory Acceptance Test (FFAT) plans, procedures and results for all Software Revisions. The Agencies, at their sole discretion and expense, may witness the FFAT tests as scheduled by the Contractor.

All Software Revisions included in an RFCS Release must pass FFAT before the RFCS Release proceeds to SIT. Software Revisions associated with an RFCS Release shall be considered to have "passed" FFAT if:

- 1) all the Software Revisions in the RFCS Release have been tested; and
- 2) any software-related Severity 1 or 2 issues identified in testing have been fixed, retested and passed unless the Agencies, in their sole discretion, agree in writing via their Contract Administrator that the issues may be deferred to another RFCS Release; and
- 3) Seventy-five percent (75%) of the combined software-related Severity 3 and 4 issues identified in testing have been fixed, retested and passed.

When the Contractor believes that a RFCS Release containing Software Revisions has passed FFAT, the Contractor shall submit an FFAT Report (CDRL 24B) to the Agencies that lists the results of each test of each Software Revision. Each FFAT Report shall be subject to Agency review and issuance of a NAC.

Outstanding software-related Severity 3 and 4 issues within the 25% maximum shall be added to a subsequent RFCS Release, and both the Overall and Detailed RFCS Release Plans shall be revised in accordance with Section 6.4 above. The final RFCS Release shall be considered to have "passed" FFAT if a maximum of 25% of the combined Severity 3 and 4 issues remain unfixed, save that any such issues shall be fixed prior to Full System Acceptance. .

e. SIT. After passing HFAT and/or FFAT (as required for the specific RFCS Release), the RFCS Release shall be subjected to System Integration Testing (SIT) in the Contractor's facility, according to the NAC'd test plan and test procedures for that RFCS Release. The test procedures shall include: testing of the Revisions in a RFCS Release; "touch point" testing of the other elements and functions of the RFCS that are related to, and reasonably likely to be affected by, the Revisions in that RFCS Release; and a standard set of tests to be conducted for each RFCS Release that demonstrate end-to-end functionality. The Agencies, at their sole discretion and expense, may witness the SIT tests as scheduled by the Contractor.

Each RFCS Release must pass SIT before it may proceed to the RTB. A RFCS Release shall be considered to have "passed" SIT if:

- 1) all the Revisions in the RFCS Release have been tested;

- 2) any Severity 1 or 2 issues related to hardware identified in testing have been fixed, tested and passed;
- 3) any Severity 1 or 2 issues related to software identified in testing have been fixed, tested and passed unless the Agencies, in their sole discretion, agree in writing via their Contract Administrator that the issues may be deferred to another RFCS Release; and
- 4) seventy-five (75%) of the combined Severity 3 and 4 issues identified in testing have been fixed, retested and passed.

When the Contractor believes that a RFCS Release has passed SIT, the Contractor shall submit a SIT Report (CDRL 24C) to the Agencies that lists the results of: each test of each Revision; all "touch point" testing; and the standard tests. Each SIT Report shall be subject to Agency review and issuance of a NAC according to the Review Process in Section 3 above. Except for the final RFCS Release, outstanding Severity 3 and 4 issues within the 25% maximum shall be added to a subsequent RFCS Release and both the Overall and Detailed RFCS Release Plans shall be revised in accordance with Section 6.4 above. The final RFCS Release shall be considered to have "passed" SIT if a maximum of 25% of the combined Severity 3 and 4 issues remain unfixed save that those issues shall be fixed prior to Full System Acceptance.

f. RTB User Testing. After passing SIT, each RFCS Release shall be installed by the Contractor in the Regional Testbed (RTB) at its Seattle facility to enable the Agencies to commence user testing. Prior to notifying the Agencies in writing that the RTB is ready for them to commence user testing, the Contractor shall conduct that part of installation testing, network connectivity testing, testing of updated Configuration Data (CD), functional testing, and any other testing necessary to verify the RTB is ready for user testing.

After receiving said notification, the Agencies shall have a mutually agreeable number of business days, which shall not be less than ten (10) business days but not more than twenty (20) business days, for scheduled conducting of the user testing in the RTB. The number of business days scheduled for user testing shall be specified in the NAC'd Detailed RFCS Release Plan and shall include the number of business days reasonably necessary for Agencies to test each RFCS Release, given the number and nature of Phase 2 Revisions proposed for inclusion therein.

The scheduled period specified in the agreed Detailed Release Plan shall be extended as required in order to re-conduct or restart failed or suspended tests as defined below under test "stop-start criteria", and/or to reasonably provide the Agencies with sufficient time to test any and all revisions associated with the release, as well as conduct end-to-end testing of the system through a series of standard tests (regression tests).

The Contractor shall provide support during the RTB user testing by assigning to the RTB such Contractor employees that are knowledgeable about the RTB and the specific RFCS Release being tested as necessary. In order for the Contractor to be able to provide such testing support, the Agencies shall provide a copy of their RTB User Testing plan to the Contractor at least ten (10) business days prior to the scheduled start of RTB testing.

User testing in the RTB detailed in the RTB testing plan may include, but is not limited to, repeating all or some of the SIT test procedures (including "touch point" testing and the

standard tests) and other tests of the RFCS Release. The Agencies will inform the Contractor of issues in accordance with the Incident Review Process specified in Section 6.II-11.7.5(b) above.

Each RFCS Release must pass User Testing in the RTB before it may proceed to the Production System. A RFCS Release shall be considered to have “passed” RTB if:

- 1) all the Revisions in the RFCS Release have been tested;
- 2) any Severity 1 or 2 issues related to hardware identified in testing have been fixed, retested and passed;
- 3) any Severity 1 or 2 issues related to software identified in testing have been fixed, retested and passed unless the Agencies, in their sole discretion, agree in writing via their Contract Administrator that the issues may be deferred to another RFCS Release; and
- 4) Seventy-five (75%) of the combined Severity 3 and 4 issues identified in testing have been fixed, retested and passed.

Outstanding Severity 3 and 4 issues within the 25% maximum shall be added to a subsequent RFCS Release and both the Overall and Detailed RFCS Release Plans shall be revised in accordance with Section 6.4 above. The final RFCS Release shall be considered to have “passed” RTB User Testing if a maximum of 25% of the combined Severity 3 and 4 issues remain unfixed, save that such issues shall be fixed prior to Full System Acceptance..

g. Test Stop-Start Criteria. All tests shall be subject to suspension and resumption of the test period duration, as follows:

- 1) In the event that a Severity 1 or 2 issue is encountered that results in the interruption of a test procedure, the test procedure shall be suspended until the issue has been rectified. The test procedure shall resume upon rectification of the issue. The testing period specified in the agreed Detailed Release Plan shall be extended to allow completion of the test procedure as planned.
- 2) In the event that the Agencies are unable to execute a test procedure in RTB testing due to planned functionality being unavailable or problems with the system, the RTB test period specified in the agreed Detailed Release Plan shall be extended until the functionality is made available or problems rectified, and the test procedure executed as planned.
- 3) The above conditions do not apply to those Severity 3 and 4 defects that the parties have mutually agreed can be moved to a subsequent RFCS Release.

h. User Testing on Agency Production Equipment . Upon satisfactory completion of RTB testing of each RFCS Release, the RFCS Release will be released into the Agencies' production equipment via the network. The Contractor shall coordinate with the Agencies on the schedule of any RFCS Releases into the Agencies' production equipment, and shall provide a complete set of RFCS Release Notes with each such RFCS Release.

In the event that the release of the software into the Agency production equipment creates a Severity 1 or 2 issue, the Contractor shall roll-back the RFCS Release to the prior version, and shall undertake such corrective action as needed to resolve Severity 1 or 2 issues identified.

The Agencies may continue testing each RFCS Release on installed production equipment and test rigs at Agency facilities except that Contractor shall give the Agencies reasonable notice, in accordance with Section 11.7.2(b) above, of any period when the system is unavailable. Agencies shall identify issues and the Contractor shall resolve such issues in accordance with the Incident Review Process specified in Section 6.II-11.7.5(b) above. Should the resolution of an issue require a further Phase 2 Revision, such Phase 2 Revisions shall be described and included in a revision to the Overall and Detailed RFCS Release Plans.

The Agencies acknowledge that such RFCS Release may not represent the final Phase 2 software, and will make reasonable accommodations to support additional testing and maintenance that the Contractor may wish to undertake.

The final RFCS Release must have been tested in the Agency environment for thirty (30) calendar days and all identified issues in all RFCS Releases shall have been closed with Agency agreement before the Completion of Complete System Commissioning Milestone may be NAC'd.

i. System Live. To enable the user testing using the RTB and the Agency production equipment, the Contractor and the Agencies have agreed that the RFCS shall remain "live" and accessible via the RTB and the Agency production equipment, and be supported by the Contractor, all in accordance with Section 11.7.2(b) above. These facilities, systems and services are considered to be in addition to, and not in lieu of, the maintenance, support and other obligations of the Contractor under the Contract. Additional compensation is provided in accordance with Section 3.I-76.3.13.

j. Final "As built" Design Documents. Upon satisfactory completion of Phase 2 System Development, RFCS Release and Testing, all Phase 2 Final Design Review Documents shall be revised/updated with any changes that resulted from the development and testing process. Once NAC'd, revisions to a document will be submitted as a "Change Request" for written approval by the Agencies' Contract Administrator in accordance with RFCS change management process.

Any documents that are unchanged as a result of Phase 2 activities shall be so noted, and the most recent version designated as the final as-built document.

In any event, the Contractor shall provide a comprehensive list of the final "as-built" versions of all documentation, listing the document name, ERG reference number, most recent revision date, and revision number.

k. Hardware Commissioning and Complete System Commissioning.

1. The Contractor has been performing hardware commissioning on a device-by-device basis as it is installed at Agency facilities and on Agency vehicles. Completion of all such device commissioning, however, does not constitute "Completion of Complete System Commissioning." As agreed in Section 3 below, achieving said Milestone requires among

other Contract obligations, that all RFCS devices that have been individually commissioned are fully operational. To the extent that such equipment has been disconnected from power after individual device commissioning, it will need to be "powered-up" and successfully loaded with the RFCS software that incorporates the applicable Phase 2 Revisions.

The following activities shall be performed on days and at times agreed upon by the Parties in coordination with the training of an Agency's employees.

(a) The Agencies will re-connect power to previously commissioned devices. The Contractor will provide field support at Agency facilities as necessary to assist the Agencies with any problems that arise during this activity.

(b) The Contractor is responsible for ensuring that the final Phase 2 version of RFCS software is automatically downloaded as the devices are powered-up. The Contractor will provide field support at Agency facilities as necessary to ensure this download is successful.

(c) Because KCM's essential radio functionality is dependent on a successful download to the on-board equipment (OBE), the Contractor shall take the following additional actions to support KCM's re-connecting of power to the OBFTP and the downloading of the final Phase 2 RFCS software to KCM's OBE. Prior to commencing the above re-powering and downloading activities for the entire KCM fleet, the Contractor and KCM will conduct a pilot test of ten buses on a Sunday to identify and resolve issues. Thereafter, the Contractor will assign a knowledgeable person to be present at KCM facilities to troubleshoot and support the activity of reconnecting power and downloading the final RFCS software to the OBE.

2. As provided in Section 6.II-11.4.5(a), the Contractor shall submit a Plan for Complete System Commissioning to "demonstrate that all systems are fully operational prior to entering revenue service." As provided in Section 6.II-11.4.5(b), said Plan for Complete System Commissioning shall:

...identify and describe all necessary tests to verify proper interfacing and installation of the equipment with other system facilities, including at a minimum:

- i. Schedule for system commissioning.
- ii. Commissioning test period.
- iii. Procedures for collecting and verifying data from each type of equipment.
- iv. Procedures for verifying the correct transfer of control commands to each type of equipment.
- v. Test reports content to be prepared.

3. The Milestone for "Completion of Complete System Commissioning" shall be deemed satisfied and eligible to be NAC'd upon the Contractor demonstrating that the following requirements have been met:

(a) all Phase 2 Revisions have been successfully completed and tested as provided above;

(b) all RFCS devices have been individually commissioned and are fully operational and in-service except for any devices that are not operational or in-service due to a cause specified in Section 3.I-53.3; and

(c) the Complete System Commissioning Test has been successfully completed and all requirements of 6.III-11.4.5 have been satisfied.

5.0 New section added to Section 6.II-12

A new section, Section 6.II-12.6, is added as follows:

6.II-12.6 Phase 2 Training

12.6.1 All Phase 2 Manuals (CDRL 34, 35), Training Materials (CDRL 29) and the Training Plan (CDRL 28) shall be revised to comply with the Contract requirements, the provisions of the Beta Readiness Waiver Agreement, and to reflect any Phase 2 Revisions. Said documents shall be subject to Agency review and issuance of a NAC as provided in Contract Section 3.I-27.5 (Phase 2).

12.6.2 The revised Training Plan shall be delivered with the Overall RFCS Release Plan.

12.6.3 The revised Manuals and Training materials shall be delivered to the Agencies at such time as any related RFCS Release is released into the RTB and will be used by the Agencies in the user testing, unless the Parties agree in the NAC'd Overall RFCS Release Plan that such Manuals and Training Materials may be delivered with a subsequent related RFCS Release into the RTB.

12.6.4 Whether before or after a NAC is issued for the Training Plan, Manuals and Training Materials, the Contractor shall modify said Deliverables as necessary to reflect results of user testing, correction of errors or inconsistencies, and to reflect further Phase 2 Revisions that arise to address issues identified. Once NAC'd, revisions to a document will be submitted as a "Change Request" for written approval by the Agencies' Contract Administrator in accordance with RFCS change management process.

END